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Energy Efficiency
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Clean Cities 2005 Annual Questionnaire Training

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Training Outline

- PowerPoint/Live Demo Format
- Discussion of What's New
- Data Entry Screens
- Reports
- Q & A



What's New

- Simplification/Deletion of Some Areas
- Addition of Technology Inventories
- Improved Data Analysis Functions
- Enhanced Usability



Overall Questionnaire Changes

- Simplification of Activity Area
 - Outreach activities only
 - No more binning!
- Deletion of AF Station Area
- Addition of inventory sections
 - Blends, Fuel economy
- Expansion of IR Inventory
 - Truckstop electrification, On-board, Other



Overall Questionnaire Changes (cont.)

- Increased Functionality
 - Calculation of petroleum offsets (GGEs)
 - More information required, but default values for many parameters available
 - Addition of % from coalition fields
- Enhanced Usability
 - Separate Reports Area
 - Report Completion Notification



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Clean Cities 2005 Questionnaire

- On-line:
http://www.eere.energy.gov/cleancities/progs/cc_survey/
- Link on the Clean Cities main page
- Accessible all of the time



Logging On

- User Name: Last name
- Password: Supplied via email
- Lost Password: Emailed to you
- Example



Division of Survey Application

- Data Entry
 - Enter coalition data
 - Current year only
- Reports
 - Current year and previous year(s)
 - Read only – no data entry



Data Entry Main Page

- User, Organization
- Operating Info
- **Outreach**
- AFV/HEV Inventory
- Niche Market Inventory
- Grants
- **Truckstop Electrification Inventory**
- **Onboard IR Inventory**
- **Other IR Inventory**
- **Fuel Economy Inventory**
- **Blend Inventory**
- Report



Questionnaire Navigation

- Click button to access area
- Section appears below the main page (Scroll down)
- Arrow (or Red Highlight) indicates current section
- Other buttons
 - ADD (New entries, green borders)
 - SUBMIT (Existing entries, red borders)
- 3 On-line Help Areas – Green Help links, roll-over, and Help pages



User and Organization

- Automatically filled in
- One questionnaire per organization
- Many users per organization
- Check information
- Example



Operating Info

- General operating info for the year
- “Fill in the blanks”
- Issues from last year
 - SEO grants not available until 10/1 of grant year
- New questions
 - Data quality
 - Data sources



Outreach

- Stakeholder and non-stakeholder activities
- Limited to outreach activities
- Evaluated based on number of persons reached



Outreach Field Descriptions

- **Technology** – AFV, Blends, HEV, Idle Reduction, Fuel Economy
- **Date** – Activity Date
- **Percentage from Coalition**
- **Activity Type** – Class of outreach activity
- **Audience** – Target of the activity
- **Number of Persons Reached** – e.g., total attendees or pieces of literature distributed
- **Notes** – Optional event description



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Outreach Examples

- Distributed 3,546 pamphlets on tire inflation to increase fuel economy



AFV/HEV Inventory

- Data uploaded from last year's surveys (RED)
- Entries
 - Vehicle weight
 - Fuel Type
 - 2004 Inventory (Filled in automatically)
 - Number added
 - Number retired
 - 2005 Net Total (calculated value)



AFV/HEV Inventory

- Edit current information (RED)
 - Retired or added vehicles
- Add new vehicle classifications (GREEN)
 - Fuels, vehicle weights that are new to the coalition
- **Only change** – Calculation of GGE displaced



AFV/HEV Inventory

- No GGE Calculations for Other, B100 or M85
- Try not to use “Other”
 - Classify hybrid combos as either the alternative fuel or hybrid
 - Gasoline displaced is important, not AF use
 - Case-by-case evaluation
- In 2004, we had 15 light-duty LPG vehicles and in 2005 it added 12 vehicles and retired 1.



Niche Market Inventory

- No changes from last year
- Classification of net AFV/HEVs from inventory into niche markets
- Not all AFV/HEVs can be classified
- Manual process
- Use report print-out for AFV/HEV net values



Niche Markets

- US Postal Service
- School Bus
- Transit
- US Park Service
- Delivery/Transport
- Police
- Airport
- Shuttle
- Private
- Other



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Niche Market Example

- 45 heavy duty CNG buses at Yellowstone National Park



Grants

- No changes from last year
- Grant amount
- Grantor
- Leverage funds amount
- Leveraged grantor
- Grant purpose
- Grant details



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Grant Example

- Received \$52,000 grant to assess feasibility of a hydrogen refueling station.



Idle Reduction Inventory

- Replaces 2004 IR Inventory
- Broken into 3 sections:
 - Truckstop electrification,
 - On-board
 - Other idle reduction



Truckstop Electrification Inventory

- Name, date, % due to coalition
- Number of bays
- Hours used/yr – Optional, default = 2400
- Notes - optional



TE Inventory Examples

- Colorado DOT put 4-bay truck stop electrification projects at 3 rest stops on I-25
 - Default used
 - Default does not show
 - Blank does not equal 0
- OR DOT has a 75-bay TE project. Each bay is used 3,542 hours per year.
 - No default used



On-board IR Inventory

- Name, date, % due to coalition
- Number of vehicles
- Type of equipment (e.g., APU)
- Hours/year used – Optional, defaults
- Gallons/hr/vehicle saved – Optional, defaults
- Notes - optional



On-board IR Inventory Examples

- Direct-fire heaters into 123 vehicles. (**Both defaults**)
- APUs for 3,244 vehicles that save 1.2 gal/hour/vehicle (**Default hours/yr**)
- Direct heat with thermal storage in 99 vehicles saving 0.95 gal/hr/vehicle and used 1342 hours/yr (**No defaults**)



Other IR Inventory

- Characterize idle reduction policies and other projects
- Name, date, % due to coalition
- Number of vehicles
- Type of project (idling time reduction, other)
- Type of vehicle
- Idling minutes saved/vehicle/day
- Days used per year – Optional, defaults
- Gallons/vehicle/hr – Optional, defaults
- Notes - Optional



Other IR Inventory Issues

- **No GGE Calculation for Other** projects or for those targeted at **General Public** or **Fleets**.
- Too many unknowns
- Case-by-case evaluation
- Put information in Notes section
- We will contact you if more info is needed



Other IR Examples

- 235 school buses limit their idling to 22 minutes daily, down from 1.5 hours daily
 - Idling time savings = $90 - 22 = 68$ minutes
- 150,000 vehicles see idle reduction signs at RR crossings and reduce idling by 5 min/day
 - No GGE calculation
 - Fill in details in Notes



Blend Inventory

- Project name, date, % due to coalition
- Blend – B2, B5, E10, Natural Gas/H2
- Number of gallons
- Motivation
 - Regulation
 - Policy
- Notes - optional



Blend Inventory Examples

- Used 45,000 gallons of B2 because of a city regulation.
- Minneapolis used 870,342 gallons of B15 because of a state law.
 - Use Help Screens
 - B15 not a selection - use B5 instead
 - Gallons B5 = 3* gallons B15
 - Gallons B5 = 2,611,026 gallons



Blend Inventory Examples cont.

- Used 15,456 cf of hythane (80% NG, 20% H₂) as a test.
 - GGE not calculated for H₂/NG blends
 - Use Help screens
 - Convert to gallons = $15,456 \text{ cf} \times 7.48 \text{ gal/cf} = 115,611 \text{ gallons}$



Fuel Economy Inventory

- Name, date, % due to coalition
- Number of vehicles
- Fuel replaced/reduced – gasoline or diesel
- Fuel economy – new and original
- VMT
- Notes - optional



Fuel Economy Inventory (cont.)

- Two types: FE Increase and VMT Reduction
- FE Increase
 - Replacing inefficient vehicles with efficient ones
 - New mpg must be $>$ Original mpg!
- VMT Reduction
 - Mass transit, biking campaigns, etc.
 - New mpg = Original mpg



Fuel Economy Inventory Examples

- FE Improvement
 - Replaced 10 Hummers (10 mpg) with Volkswagen Golfs (41 mpg) that travel 15,000 miles/yr
- VMT Reduction
 - Convinced 75 commuters to bike to work 1 day per week. Average commute = 10 miles, average FE of vehicle = 20 mpg
 - $VMT = 1 \text{ day/week} * 20 \text{ miles} * 52 \text{ weeks/yr} = 1040 \text{ miles/yr}$



Report

- Summary of your organization's current annual report
- Organized by data entry sections
- Can be run at any time
- Finished Report
 - Notifies Regional coordinator and you
 - Email has report link
- Example



Reports Section

- Accessible from 1st page
- Can run annual report for any year
- Specific to your coalition
- Go back to Data Entry



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Resources

- **System errors, access issues, data issues**
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